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A Comparison of Traditional Organizational Requirements and Emerging Business Process Inefficiencies

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Abstract

This paper reports on a component of a doctoral study looking at the collaborative adoption of electronic commerce technologies within specific industry sectors. This paper considers the perceptions of organisations with regard to the requirements for enhancing growth and attaining competitive success within business. A comparison of these organizational perspectives is made with observational data. Such observational data suggests that these organizational perceptions are somewhat lacking in their identification of non-traditional but, seemingly essential requirements within these organizations.

INTRODUCTION

For many years now, government, academic and media personalities have been advocating the use of Electronic Commerce (EC) technologies within businesses worldwide. The benefits of these new technologies are widely proported and the incorporation of these technologies, wildly exaggerated (Alston, 1998; DIST 1998; NOIE 1998).

Month by month, reports are produced promoting EC technologies as the new way in which organizations can reach markets and increase their competitive advantage. Case studies are provided illustrating the strategic use of the Internet and associated technologies within organizations.

Such illustrations inherently suggest the take-up and adoption of these new technologies within business environments is rapidly taking place worldwide, just as predicted in recent years. However, actual rates of incorporation of these new technologies are difficult to come by. Each analysis, based upon a specific

geographic region, suggests different findings of levels of incorporation.

This study reports on a component of a doctoral study looking at inhibitors to the collaborative adoption of electronic commerce technologies within Tasmania, an island state to the south of the mainland of Australia. Recent studies have shown a distinct lack of incorporation of electronic commerce technologies within Tasmanian business organizations (Lawrence 1996; Chau and Lawrence 1998), findings that adhere closely to those identified in many other regions worldwide. The large doctoral study involves an in-depth analysis of the aspects of electronic commerce implementation and integration within organizations that belong to three key industry sectors of Tasmania's economy – the wine industry, the vegetable industry and the mollusc industry.

The three industries noted above have been identified by the Australian Federal Government as industries that have potential for substantial growth and expansion as a result of the introduction of electronic commerce technologies. Preliminary results from the doctoral study have, however, been unable to identify any significant number of organisations within these industries incorporating such technologies, despite government promotion of the benefits of such incorporations. This paper focuses on one interesting aspect of these organisations which may be contributing to the slow rate of incorporation and adoption of such technologies. This project has identified a significant difference between those requirements perceived to be essential for growth and prosperity by the organizations themselves, and those requirements identified in interviews and observations undertaken throughout the study.

METHODOLOGY

The methodology by which the study was undertaken incorporates a number of qualitative data collection techniques. Document searches, non-participant observation and semi-structured interviews of approximately two hours in duration were undertaken with organizations within the three specific industry groups in an attempt to identify their existing business processes, their perceptions regarding information technology, and their relations with supply-chain trading partners. A total of 22 data sources were collected, from organisations ranging in size, technological capability, and industry.

All data collected was analysed using a range of qualitative techniques including grounded theory coding (Strauss 1987; Glaser 1992), and top-down theme investigation.

FINDINGS

Whilst not explicit, there exists a distinct lack knowledge and understanding within the three Tasmanian industries of information technology, in particular, electronic commerce technologies. Throughout the interview processes organizations exhibited a limited and somewhat superficial understanding of electronic commerce technologies. To a large extent, knowledge of electronic commerce was limited to two particular technologies – Electronic mail, and the Internet. Such technologies were identified by numerous organizations as the only EC-related technologies they were aware of. This awareness had come about from hearing reference to them on television, radio and newspapers. On further questioning, the superficial nature of this knowledge became apparent as many organizations knew very little of the business applications and potential use of such technologies.

One area of interest which became apparent during data analysis relates to the perception of Electronic Commerce technologies and the business emphases of the organizations.

Perceived Business Requirements

Throughout the interviews, organizations were given opportunities to identify areas where they perceived their business could exhibit growth – what processes could be improved or augmented so as to enable organizational expansion or competitive advantage. In an overwhelming majority of the case studies, organizations stated that the only real way in which to achieve organizational growth and competitive advantage was to increase production of their particular product. Because of the agricultural base of the three industries chosen for the study, this belief exhibited itself in such a way as to be a request for new

(non-technological) methods of production, new crop protection techniques, and larger planting areas.

These organizations had a strong philosophy that the introduction of those factors identified above would be the way in which their organization would achieve growth and attain a competitive advantage over other industry players.

Existing Business Problems

Through methods of participant observation and interviewing, a number of substantial problems became apparent as commonly existing within the organizations of these three industry groups.

Many of the problems which organizations identified as being of major concern, but of which (they perceived) nothing much could be done, related to specific components of an organization's internal business processes or relations within its supply chain. For example, many organizations cited marketing of their product as a problem. They found very few of their existing marketing techniques provided them with any increased interest from customers. Many of the traditional techniques employed included mail-order catalogues to existing clientele and picture advertisements in local magazines and newspapers, neither of which appeared to draw in new customers for their products.

Problems of distribution of organizational products were also identified as a major concern of the case study organizations. It appeared that there existed substantial costs and coordination issues involved with the distribution of products. The majority of the case study organizations operated individually and with very little cooperation or collaboration between other members of the industry. Consequently, many organizations were paying excessive costs for their distribution of a relatively small amount of product.

Inconsistent management practices between organizations were a third problem identified by the companies as being awkward for undertaking business transactions. They identified many examples of differing practices of information exchange, manual funds transfer and order placement.

Organizational Emphasis	Observational Emphasis
<ul style="list-style-type: none">• Production techniques• Planting areas	<ul style="list-style-type: none">• Marketing• Distribution• Management practices

Figure 1: Summary of differences between perceived business requirements and observed business requirements.

DISCUSSION

From the extensive analysis of all data collected from the organizational case studies, it appears that there exists a disparity between those issues which an organization believes should be addressed to enhance their organizational position within their market, and those issues which are inhibiting the growth potential which need to be addressed to enable the organization to function effectively in an increasingly technologically-focussed business environment.

Many of the case study organizations, as stated above, believed that organizational growth will come about with increases in crop production techniques, whilst they appear to be inactive about those issues which are inhibiting the effective operation of their internal business processes in their relations with trading partners. One reason for excessive emphasis on production technology may be the well-publicised notion of small organizations and their emphasis on short-term profitability, rather than long-term strategic growth (Lawrence 1996; Monash University 1996). Similarly, such organizations are unaware of how information technologies and in particular, Electronic Commerce technologies can streamline organizational processes and enhance effective and efficient trading partner relationships.

In conclusion, it appears that the organizational adoption of electronic commerce, at least within the industries specified within this study, may be inhibited simply by a lack of recognition of the need for such technologies and business process enhancements. The belief that organizational prosperity will only come about from a traditional emphasis on crop production is strongly instilled into these three industry sectors, and is based upon many generations of organizational experience. To enable such organizations to see the benefits of re-focussing their attention is a challenge. However, it is one that must be overcome if such organizations are to take full advantage of the changing business environment in which they will operate in the future.

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